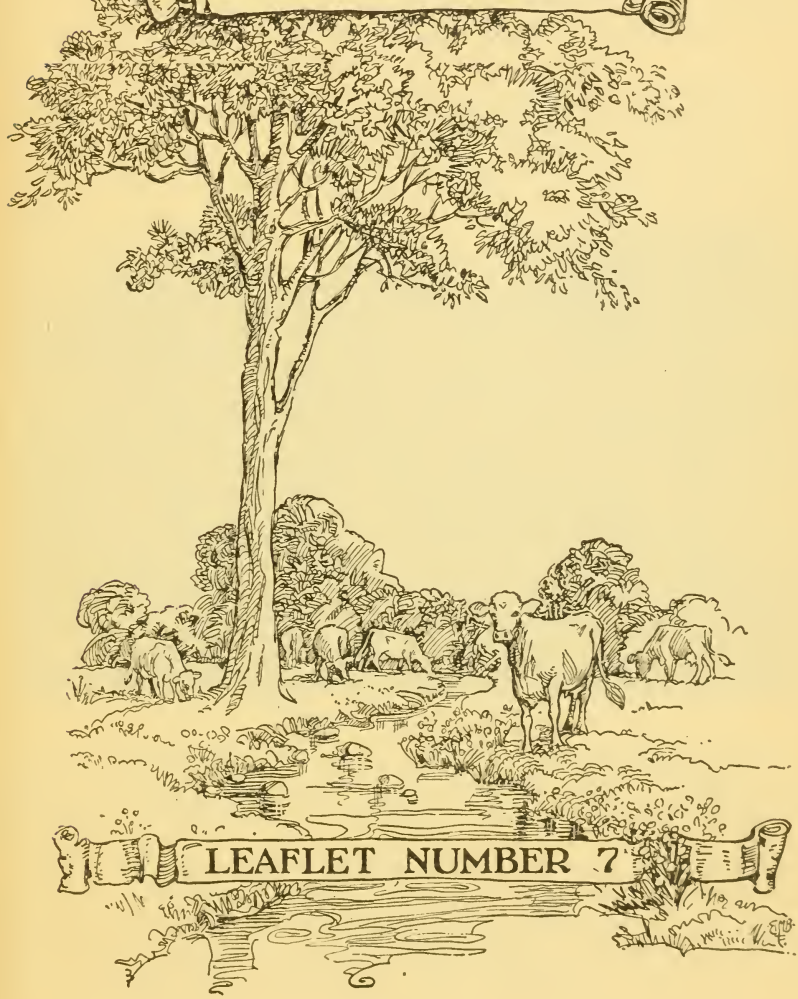
FEEDING DAIRY COWS IN SUMMER



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During the spring and summer everyone enjoys green foods. They are palatable, sharpen the appetite, and serve as tonics to the digestive system. Cows also like green food in the spring, and it is difficult to keep them contented until they are turned on pasture. In their wild state, green grass was their only food during the spring and summer, and they grew sleek and fat. But the food requirement of those early cows was very small. They produced only enough milk for their calves for a few months.

Fig. 1.—Luxuriant pasture

As compared to her remote ancestors, the modern dairy cow is largely artificial. She is expected to produce many thousand pounds of milk each year, and her milking period extends over the greater part of the year.

How would you like to pitch hay or chop wood all day and have nothing to eat except greens or other foods containing a large percentage of water? You could work well at first because your body would have a supply of stored-up energy; but when this supply was exhausted, the amount of work which you could do would diminish rapidly.

GRASS ALONE DOES NOT CONTAIN ENOUGH NUTRIENTS

One of the hardest-working animals on the farm is the high-producing dairy cow. If she produces as much as 35 pounds of milk a day she can ordinarily not eat and digest enough grass to

furnish all the nutrients for her requirements. A cow producing only 20 or 25 pounds per day will scarcely be able to get sufficient nutrients out of the good pasture grass which she can eat to keep up this amount of production. Yet thousands of farmers expect

FIG. 2.—They harvest it themselves

their dairy cows to produce more than this during the summer on poor pastures with no additional feed.

Early spring grass is watery and immature and may contain less than 10 pounds of dry matter per 100 pounds of grass. This is a smaller quantity of dry matter than is contained in 100 pounds of

milk. A cow producing 35 pounds of milk per day must gather and eat about 275 to 300 pounds of early spring grass to get enough feed for her requirements. It would be practically impossible for her to do this on the very best of pasture.

For this reason dairy cows should not be turned on pasture too early. Keep them in the barnyard until the grass is 3 to 4 inches high. Then turn them on the pasture for a few hours a day at first, and continue the feeding of grain, hay, and silage for a time. A gradual change of this kind will lessen the danger of bloat and will minimize the grassy taste in the milk. If cows that are producing moderately are in thin condition at the end of the winter, they may increase in weight on pasture alone. However, it is generally good practice to continue feeding grain to cows on early spring pasture because the milk production will be higher and will be maintained longer, and the cows will not lose so much weight as when they get nothing but pasture.

HIGH-PRODUCING COWS NEED GRAIN

When the grass has become more mature and has lost part of its succulence, it will contain from 20 to 25 pounds of dry matter per 100 pounds—about twice the amount of dry matter that early spring grass contains. However, even with this increase in the feeding value of the pasture, liberal-milking cows will need additional feed. A cow giving 35 pounds of milk daily must eat and digest about 150 pounds of this mature grass to get enough feed for her requirements. On first-class pasture a cow might do this, but very few pastures are first-class. Therefore, cows producing abundantly should always be fed grain in addition to pasture. Experiments have shown that cows producing not over 20 pounds of milk per day will do pretty well on good pasture with no additional feed. They may produce a little more milk if fed some grain, but the increased flow of milk will not ordinarily pay for the grain fed.

In addition to good pasture, cows producing more than 20 pounds of milk daily should be given 1 pound of grain to each 4 to 6 pounds of milk produced. The grain may be a mixture of the ordinary farm grains, such as corn, oats, wheat bran, or barley, and should always be ground. For cows producing more than 35 pounds of milk daily the grain mixture should contain one high-protein concentrate, such as the oil meals; otherwise the ration will be too low in protein in comparison with the carbohydrates and fats.

SUCCULENT FEEDS NEEDED WHEN PASTURES ARE POOR

During July and August pastures in most sections are short because of dry weather and being grazed too closely. (Fig. 3.) If there is any grass it is not succulent and is unpalatable. Consequently, cows will not consume enough for high milk production. If the cows are in good condition when they are turned on pasture in the spring, there will be a gradual decrease in milk flow during the summer, because on this poor pasture they are drawing on their stored-up flesh to supply nutrients for milk production. When this body surplus is exhausted there is a much more rapid decrease. Part of this decrease may be due to hot weather and flies, but experi-

ments have shown that it is due largely to lack of sufficient nutrients in the small amount of grass that they eat.

Experienced dairymen know that if the production of their cows has decreased during the hot, dry weather because of insufficient feed, it is difficult and practically impossible to bring the production back to normal during that milking period. This is an important fact to remember, especially concerning spring-freshening cows. Not only grain and roughage, but also a succulent feed should be fed at this time.

The summer silo is probably the best means of supplementing short, dried-up pastures. For a herd of 12 to 20 cows, a silo from 10 to 12 feet in diameter is best suited for this purpose because the silage can then be fed out fast enough to prevent spoiling. If all the silage is not fed during the summer it can be fed the following winter or the next summer. Silage will keep for several years.

FIG. 3.—Short, dried-up pasture. Cows need a succulent feed to supplement short pasture

SUPPLEMENTARY PASTURE CROPS

Supplementary pasture crops instead of summer silage are used by many dairymen to prevent the midsummer drop in milk flow. In many sections sweet clover has proved very satisfactory for this purpose. (Fig. 5.) It does well at this season and has the advantage of being a legume and consequently contains a large amount of protein and lime. Alfalfa can also be pastured at this time. (Fig. 6.)

Many combinations of legumes, such as peas, vetches, and soy beans, with grains, such as corn, wheat, oats, barley, and rye, can be grown and fed green. Successive plantings of these crops will often provide succulent feeds over an extended period.

Sudan grass is also well suited for grazing purposes throughout the Central West.

FIG. 4.—Milking barn with two silos of small diameter. One of the silos may be used for summer feeding

PASTURES NEED GOOD CARE

Although it is essential that grain be fed to high-producing cows on pasture, good pasture probably furnishes the cheapest source of milk-making nutrients of any farm crops. Poor pastures are like poor feeds of any kind. It pays to take good care of pastures. Top-

FIG. 5.—Sweet-clover pasture

FIG. 6.—Cows on alfalfa pasture

dress them with manure and commercial fertilizer. This will not only induce faster and heavier growth but will increase the lime and phosphorus content of the grass itself.

Mow the pastures occasionally during the year to keep the weeds from reseeding themselves. This will allow more grass to grow. Do not permit the pastures to be grazed too closely, and do not turn the cows on them in the spring until the grass is well started.

FIG. 7.—An irrigated pasture

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